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CARRIER-BASED ELECTRONIC MODULE

ABSTRACT

10 An improved multi-chip module includes a circuit board having an array of
electrical interconnection pads to which are mounted a plurality of IC package units.
Each IC package unit includes multiple IC packages, which are mounted on opposite
sides of a package carrier. The package units may be mounted on one or both sides
of the circuit board. A variety of package carriers are used to create a number of
different modules. One type of package carrier has a pair of major planar surfaces.
15 Each planar surface incorporates electrical contact pads. At least one IC package is
surface mounted on each major planar surface, by interconnecting the connection
elements, or leads, of the package with the contact pads on the planar surface, to
form the IC package unit. Another type of package carrier substrate has a multiple
recesses for back-to-back surface mounting of the IC packages. The package also
20 includes in various versions heat sinks.